

REMARKS

Applicants have carefully reviewed this Application in light of the Office Action mailed July 7, 2006. Claims 1-21 are pending in this Application. Claims 1, 9 and 15 stand rejected under 35 U.S.C. § 102(e) and Claims 1-21 stand rejected under 35 U.S.C. § 103. Applicants respectfully request reconsideration and favorable action in this case.

Rejections under 35 U.S.C. § 102

Claims 1, 9 and 15 stand rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,625,747 issued to Ahmad H. Tawil et al. (“*Tawil*”).

Tawil discloses a method for failover in a storage area network and system for using such method. A multipathing driver monitors the flow of information through different signal paths. (Col. 4, Lines 22-25). The multipathing driver may reroute input data being sent to storage system through a second signal path in the event that the first signal path is not functioning properly. (Col. 4, Lines 29-33). The multipathing driver may detect signal path failure or malfunction by receiving a failure notification via either HBA or switch or by not receiving a response to an I/O request to storage system 62. (Col. 7, Lines 7-13).

Claim 1 recites a method comprising “marking, in response to detection of a failure event, a point in the information exchange at which the failure event occurred.”

Claim 9 recites software operable to “retrieve an exchange status indicating a point in the exchange at which the failure event occurred.”

Claim 15 recites an information handling system comprising a program of instructions “operable to mark a point of failure in an information exchange with a sequential storage device in response to a communication path failure.”

Applicants respectfully submit that the *Tawil* reference cited as anticipatory by the Examiner cannot anticipate the rejected claims, because this reference does not show all elements of the present Claims. *Tawil* fails to teach a failover method comprising “marking, in response to detection of a failure event, a point in the information exchange at which the failure event occurred,” as recited by Claim 1. *Tawil* also fails to teach software for completing a transaction between a sequential storage device and a host information handling system operable to “retrieve an exchange status indicating a point in the exchange at which the failure event occurred,” as recited by Claim 9. Furthermore, *Tawil* fails to teach or

suggest an information handling system comprising a program of instructions “operable to mark a point of failure in an information exchange with a sequential storage device in response to a communication path failure,” as recited by Claim 15.

The Examiner argues that *Tawil* discloses “marking (i.e., *failure notification* [col. 7, lines 5-20]), in response to detection of a failure event, a point in the information exchange at which the failure even occurred [fig. 1-2, col. 8, lines 62 through col. 10, lines 12].” (Office Action, Page 3) (emphasis in original). The portions of *Tawil* cited by the Examiner, however, do not teach or suggest, for example, “marking, in response to detection of a failure event, *a point in the information exchange* at which the failure event occurred,” as recited in Claim 1. (emphasis added). Instead, *Tawil* merely teaches rerouting of a communication if an I/O request to a storage system has “timed out.” (Col. 7, Lines 9-16). The cited reference, therefore, fails to disclose the recited limitations and cannot anticipate Claims 1, 9 and 15. As such, Applicants respectfully request that the Examiner withdraw the rejections and allow Claims 1, 9 and 15.

Rejections under 35 U.S.C. §103

Claims 1-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,578,158 issued to William G. Deitz et al. (“*Deitz*”) in view of U.S. Patent No. 7,003,687 issued to Naoto Matsunami et al. (“*Matsunami*”).

Deitz discloses a memory system of RAID controllers connected by a fibre channel arbitrated loop providing transparent failover and failback for failed controllers. (Col. 3, Lines 4-6). The memory system further includes a communication path adapted to enable each controller to detect failure of the other controller. (Col. 3, Lines 35-38). Operation of the controllers is monitored and when a failure is detected, a failover procedure disables the failed controller and the surviving controller assumes the identity of the failed controller. (Col. 3, Lines 13-16). A computer program uses a loop initialization unit to instruct the surviving controller to assume the identity of the failed controller. (Col. 4, Lines 14-19). The surviving controller then responds to instructions addressed to it and the failed controller. (Col. 4, Lines 14-19).

Matsunami discloses a failover storage system provided with a plurality of input/output devices. (Col 1, Lines 26-28). Each I/O device controller includes means that

store a heartbeat mark in shared memory at fixed time intervals and monitor their states by using said heartbeat mark in storing area of shared memory. (Col. 14, Lines 22-29).

Claim 1 recites a method comprising “marking, in response to detection of a failure event, a point in the information exchange at which the failure event occurred.”

Claim 9 recites software operable to “retrieve an exchange status indicating a point in the exchange at which the failure event occurred.”

Claim 15 recites an information handling system comprising a program of instructions “operable to mark a point of failure in an information exchange with a sequential storage device in response to a communication path failure.”

Applicants respectfully submit that the cited references fail to disclose every element of Applicant’s invention. Further, there is no motivation, teaching, or suggestion to combine *Deitz* and *Matsunami*. *Deitz* and *Matsunami*, alone or in combination, fail to teach at least a failover method comprising “marking, in response to detection of a failure event, a point in the information exchange at which the failure event occurred,” as recited by Claim 1. *Deitz* and *Matsunami* also fail to teach software for completing a transaction between a sequential storage device and a host information handling system operable to “retrieve an exchange status indicating a point in the exchange at which the failure event occurred,” as recited by Claim 9. In addition, *Deitz* and *Matsunami* fail to teach an information handling system comprising a program of instructions “operable to mark a point of failure in an information exchange with a sequential storage device in response to a communication path failure,” as recited by Claim 15.

The Examiner acknowledges that *Deitz* does not explicitly address “marking a point in the information exchange at which the failure event occurred” but argues *Deitz*’s “failback and resume operations used to support failover process including identifying data (i.e., state data), preventing data loss, resetting signal, etc ... [fig. 1-3, col. 8, lines 14 through col. 9, lines 14] as being the marking a point in the information exchange at which the failure event occurred.” (Office Action, Pages 7-8). This portion of *Deitz* cited by the Examiner, however, does not teach or suggest “marking, in response to detection of a failure event, a point in the information exchange at which the failure event occurred.” as recited by Claim 1. (emphasis added). Instead, *Deitz* simply teaches reset and resume signals, which control the active state of the ports. (Col. 9, Lines 1-11).

The Examiner also argues that *Matsunami* discloses a means for “marking a heartbeat in supporting the fail-over process [col. 14, lines 7-29].” (Office Action, Page 7) (emphasis in original). This portion of *Matsunami* cited by the Examiner does not teach or suggest “*marking*, in response to detection of a failure event, *a point in the information exchange* at which the failure event occurred,” as recited by Claim 1. (emphasis added). Instead, *Matsunami* merely teaches that the channel adapter state information is referred to as a heartbeat mark, which includes such data as NAS channel adapter identifier, normal code, and updating time. (Col. 6, Lines 3-6). This information included in the heartbeat mark, as referenced, does not indicate marking a point in the information exchange at which the failure event occurred.

The cited references, therefore, fail to disclose the recited limitations and cannot render obvious Claims 1, 9, and 15. Given that Claims 2-8 depend from Claim 1, Claims 10-14 depend from Claim 9, and Claims 16-21 depend from Claim 15, Applicants respectfully submit that Claims 2-8, 10-14, and 16-21 are allowable. As such, Applicants respectfully request that the Examiner withdraw the rejections and allow Claims 1-21.

CONCLUSION

Applicants appreciate the Examiner's careful review of the application. Applicants have now made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. For the foregoing reasons, Applicants respectfully request reconsideration of the rejections and full allowance of Claims 1-21.

Applicants believe there are no fees due at this time, however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 02-0383 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2581.

Respectfully submitted,
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